

REMARKS

Claims 1-5 are pending in this application, of which claims 1 and 2 have been amended.

No new claims have been added.

Claims 1 and 2 stand objected to for informalities which have been taken care of in the aforementioned amendments.

Claims 1 and 3 stand provisionally rejected under obviousness-type double patenting as being unpatentable over claims 1 and 4 of copending Application No. 10/046,293 (hereinafter "293").

The Examiner has admitted that '293' fails to disclose the limitation of stopping fuel during deceleration when the cylinders are deactivated, but urges:

... it is obvious to one having ordinary skill in the art that fuel is stopped when the cylinders are deactivate to prevent excessive exhaust emissions. [Sic.]

Applicants respectfully disagree. Page 10, lines 1-15 of the specification disclose that "all cylinders deactivated operation" is enabled by both the intake and exhaust valves being closed. It is not a necessary condition that the fuel be stopped. The only requirement is that the valves be closed to perform all cylinder deactivation. Performing the closing of the valves when fuel stoppage occurs during deceleration is one of the inventive aspects of the present invention.

The Examiner has indicated:

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Applicants reserve the right to file such a terminal disclaimer if or when a FINAL Office Action is received.

Thus, the double patenting rejection should be withdrawn.

Claims 1, 3 and 5 stand rejected under 35 USC §103(a) as unpatentable over U.S. Patent 6,487,998 to Masberg et al. (hereinafter "Masberg et al.").

Applicants respectfully traverse this rejection.

Masberg et al. discloses a device for shutting off at least some of the cylinders of the internal combustion engine, and a device for active reduction of rotational nonuniformities, acting in particular on a shaft, such as a drive shaft of the internal combustion engine, or a shaft that is coupled or which can be coupled to it, which is active at least for certain operating states during cylinder shutoff mode.

Like '293' discussed above, the Examiner has admitted that Masberg et al. fails to teach, mention or suggest that the fuel supply to the engine is stopped when the vehicle is decelerated or braked, which is an inventive feature of the present invention.

Thus, the 35 USC §103(a) rejection should be withdrawn.

Claims 2 and 4 stand rejected under 35 USC §103(a) as unpatentable over Masberg et al. in view of U.S. Patent 6,360,728 to Sturman (hereinafter "Sturman").

Applicants respectfully traverse this rejection.

Sturman discloses a control module which controls camless hydraulically driven intake and exhaust valves and an hydraulically driven fuel injector of an internal combustion engine. The module contains a valve assembly to control the intake valve, a valve assembly to control the exhaust valve and a valve assembly to control the fuel injector. The valve assemblies preferably each contain a pair of solenoid actuated two-way spool valves. The solenoids are actuated by digital pulses provided by an electronic assembly within the module. The solenoid actuated spool valves control the flow of a hydraulic fluid to and from the fuel injector and the intake and exhaust valves. The hydraulic fluid opens and closes the intake and exhaust valves. The hydraulic fluid also actuates the fuel injector to eject a fuel into a combustion chamber of the engine. The electronic assembly of each module can be connected to a main microprocessor which provides commands to each assembly. Each electronic assembly processes the command, feedback signals from the hydraulically actuated devices and historical data to insure a desired operation of the fuel injector and intake and exhaust valves.

Like the other cited references, Sturman fails to teach, mention or suggest the recitations of claim 1, from which these claims depend.

Thus, the 35 USC §103(a) rejection should be reconsidered and withdrawn.

In view of the aforementioned amendments and accompanying remarks, claims 1-5, as amended, are in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

U.S. Patent Application Serial No. 10/051,046

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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